WHAT IS CLAIMED IS:

1. A mold tool for packaging integrated circuits, comprising:

a first mold plate comprising a first non-planar surface;

a second mold plate comprising a second non-planar surface, the first and second non-planar surfaces forming upper and lower surfaces of a mold cavity when the first and second mold plates are engaged; and

a distribution system coupled to the mold cavity, the distribution system operable to transfer a mold compound into the mold cavity to substantially encapsulate an integrated circuit, the distribution system comprising:

a gate runner coupled to the mold cavity, the gate runner operable to funnel the mold compound into the mold cavity; and

a bridge insert operable to decrease wear on the gate runner as the mold compound is transferred through the gate runner.

2. The mold tool of Claim 1, wherein the distribution system further comprises a transfer system coupled to the gate runner, the transfer system comprising:

a mold source for storing mold compound in the distribution system; and

a plunger operable to apply a compressive load to the mold compound in the mold source to transfer the mold compound from the mold source to the gate runner.

3. The mold tool of Claim 2, wherein the distribution system further comprises one or more passages coupling the mold source to the gate runner.

4. The mold tool of Claim 1, wherein the gate runner includes first and second ends, the cross-sectional area of the second end is less than the cross-sectional area of the first end, the second end operable to funnel mold compound into the mold cavity.

5. The mold tool of Claim 4, wherein the bridge insert is of a shape and size corresponding to the second end of the gate runner, the bridge insert adjacent to an inner wall of the gate runner.

6. The mold tool of Claim 1, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including a metal oxide composite.

7. The mold tool of Claim 1, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including a metal nitride composite.

8. The mold tool of Claim 1, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including a silicon nitride doped with titanium nitride.

9. The mold tool of Claim 1, wherein the bridge insert comprises a high strength metal composite adapted to increase the lifespan of the mold tool to approximately 1kk mold cycles.

10. The mold tool of Claim 1, wherein the mold compound comprises an epoxy resin of a temperature on the order of 170 to 175 °C.

11. A method of packaging integrated circuits, comprising:

providing a first mold plate comprising a first non-planar surface;

providing a second mold plate comprising a second non-planar surface, the first and second non-planar surfaces forming upper and lower surfaces of a mold cavity when the first and second mold plates are engaged;

transferring a mold compound through a distribution system coupled to the mold cavity to substantially encapsulate an integrated circuit, the distribution system comprising a gate runner coupled to the mold cavity, the gate runner operable to funnel the mold compound into the mold cavity, the gate runner including a bridge insert operable to decrease wear on the gate runner as the mold compound is transferred through the gate runner.

12. The method of Claim 11, wherein transferring the mold compound through the distribution system further comprises:

storing the mold compound in a mold source in the distribution system; and

applying a compressive load to the mold compound in the mold source to transfer the mold compound from the mold source to the gate runner.

13. The method of Claim 12, wherein transferring the mold compound through the distribution system further comprises transferring the mold compound through one or more passages coupling the mold source to the gate runner.

14. The method of Claim 11, wherein transferring the mold compound through the distribution system further comprises:

transferring the mold compound through a first end of a gate runner; and

transferring the mold compound through a second end of the gate runner, wherein the cross-sectional area of the second end is less than the cross-sectional area of the first end, the second end operating to funnel the mold compound into the mold cavity.

15. The method of Claim 14, wherein the bridge insert is of a shape and size corresponding to the second end of the gate runner, the bridge insert adjacent to an inner wall of the gate runner.

16. The method of Claim 11, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including a metal oxide composite.

17. The method of Claim 11, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including a metal nitride composite.

18. The method of Claim 11, wherein the bridge insert comprises a ceramic bridge insert, the ceramic bridge insert including silicon nitride doped with titanium nitride.

19. The method of Claim 11, wherein the bridge insert comprises a high strength metal composite adapted to increase the lifespan of the mold tool to approximately 1kk mold cycles.

20. The method of Claim 11, wherein the mold compound comprises an epoxy resin of a temperature on the order of 170 to 175 °C.